

# Presentation Material

for the Nine Months Ended December 31, 2022

2023/2/9

Tokyo Stock Exchange Prime Market: Code 3676

<https://www.digitalhearts-hd.com/>

# Q3 FY2022 Financial Results

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(The nine months ended December 31, 2022)



Both businesses achieved  
**Significant  
Increases in Sales**

Net sales

¥**26,879** mn  
(YoY 126.5%)

- The Enterprise Business, our focus business, continued to **grow at a high rate of about YoY 1.5 times**, backed by the acceleration of DX.
- The Entertainment Business also achieved **a double-digit growth** due to strong sales for console games.
- Sales of the both businesses have **exceeded company forecasts**.

**Profit Increased**  
despite strategic investment

Operating income

¥**2,140** mn  
(YoY 100.8%)

- Achieved **new record high profit**.
- The Enterprise Business invested mainly in 1H, then cost controls and better sales made **profit growth in Q3 three months**.
- The Entertainment Business achieved **a double-digit profit growth** due to the sales increase and a high gross margin.

**Significant Growth  
in EBITDA**  
due in part to M&A

EBITDA

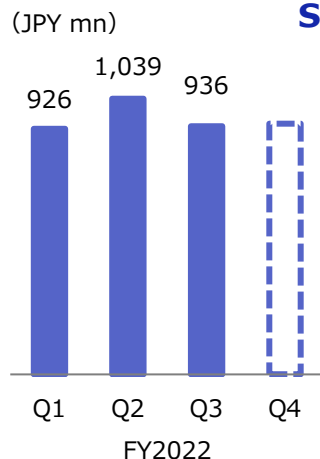
¥**2,984** mn  
(YoY 116.2%)

- Both the Enterprise and the Entertainment Business achieved **a double-digit growth of EBITDA**, excluding the impact of amortization of goodwill, etc.
- EBITDA of existing businesses excluding the impact of newly consolidated subsidiaries was **YoY 110.7%**, showing **steady cash flow expansion**.

Launched AGEST, Inc. in April 2022 and **concentrated strategic investments** in 1H. **Improving OP margin** due to sales expansion after investments and cost control.

## SG&A

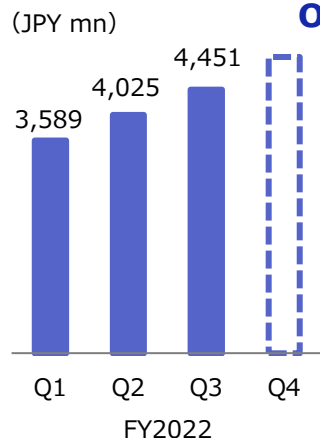
### SG&A expenses increased due to strategic investments



- AGEST, the core company, making strategic investments in 2H as well.
- Total SG&A decreased in 3Q due to cost control throughout the Group.
- Aiming to keep SG&A in 4Q on par with 3Q.

## Net sales

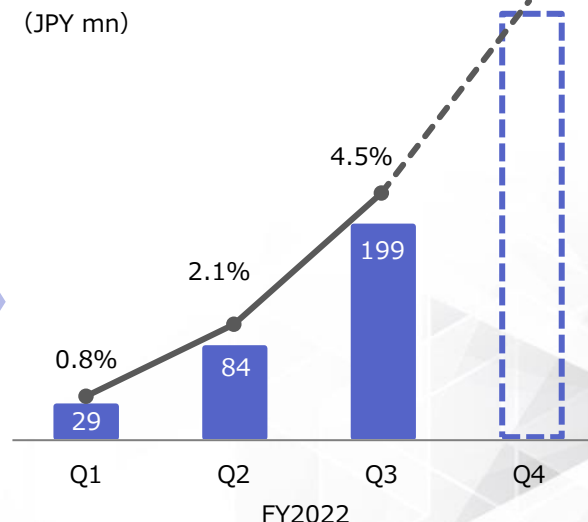
### Growing steadily, due to effects of strategic investments



- Number of clients with orders steadily rising.
- Expand services by increasing the number of expert engineers.
- Rapid sales growth from Q1, QoQ 110%.
- Aiming to achieve full year sales of ¥17.0 billion, exceeding the initial forecasts.

## Segment income

### Aiming for over 7% OP margin in Q4



- AGEST achieved significant profit growth in Q3 due to increased sales, even with its continuous investments.
- Aiming to achieve record-high profit on a quarterly basis in Q4, with better OP margin due to its sales growth.

## Materializing growth effects of strategic investments in the Enterprise Business. Initiatives of the Entertainment Business to strengthen its global business foundation.

### Enterprise Business

Core company AGEST has been steadily expanding its businesses in Q3 nine months

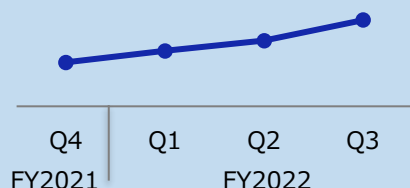
AGEST  
Number of engineers hired

YoY Approx.  
**2.1 times**

AGEST  
Number of high-skill engineer applicants

**Increase steadily**

Number of applicants



### Entertainment Business

Changed name of subsidiary in South Korea as part of its PMI

Before

**orogo**  
ORGOSOFT

After

✓ **DIGITAL HEARTS**  
Seoul

### Entertainment Business

Strengthening the marketing business in South Korea

- Newly invited two marketing experts in South Korea



Ryu Eunji



Choi Hyangsook

### Enterprise Business

New owned media "Scripts" launched

**</Scripts>**

- Providing information necessary for improving software quality

### Entertainment Business

Decided to raise hourly wages of testers in response to price hikes

From April 2023

Hourly wages for part-time game testers

**Up 5%~20%**

Improving the added value of debugging

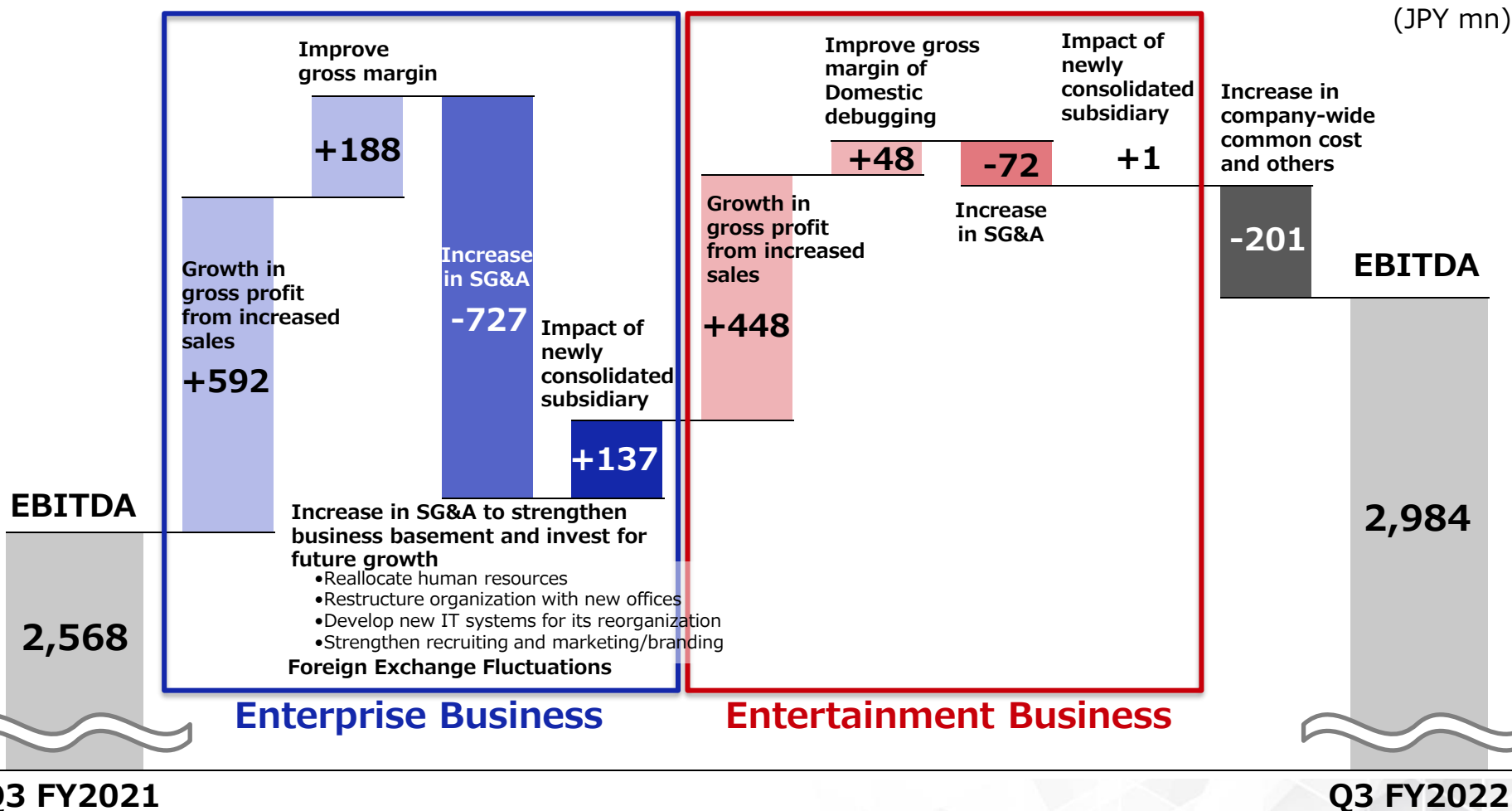
**Raise service unit price**

# Summary of Business Results for Q3 FY2022

Significant increase in sales due to the growth of existing businesses and the impact of M&As. Operating income increased and EBITDA grew significantly, despite aggressive investment for growth.

| (JPY mn)                                | Q3 FY2021 | Q3 FY2022 | YoY Change |             |
|-----------------------------------------|-----------|-----------|------------|-------------|
| Net sales                               | 21,246    | 26,879    | 5,633      | 126.5%      |
| Cost of sales                           | 15,141    | 19,067    | 3,925      | 125.9%      |
| Cost of sales (%)                       | 71.3%     | 70.9%     |            | -0.3 points |
| Gross profit                            | 6,104     | 7,811     | 1,707      | 128.0%      |
| SG&A                                    | 3,980     | 5,670     | 1,690      | 142.5%      |
| Operating income                        | 2,123     | 2,140     | 17         | 100.8%      |
| Operating income margin                 | 10.0%     | 8.0%      |            | -2.0points  |
| Ordinary income                         | 2,192     | 2,351     | 159        | 107.3%      |
| Profit attributable to owners of parent | 1,363     | 1,400     | 37         | 102.7%      |
| EBITDA                                  | 2,568     | 2,984     | 415        | 116.2%      |

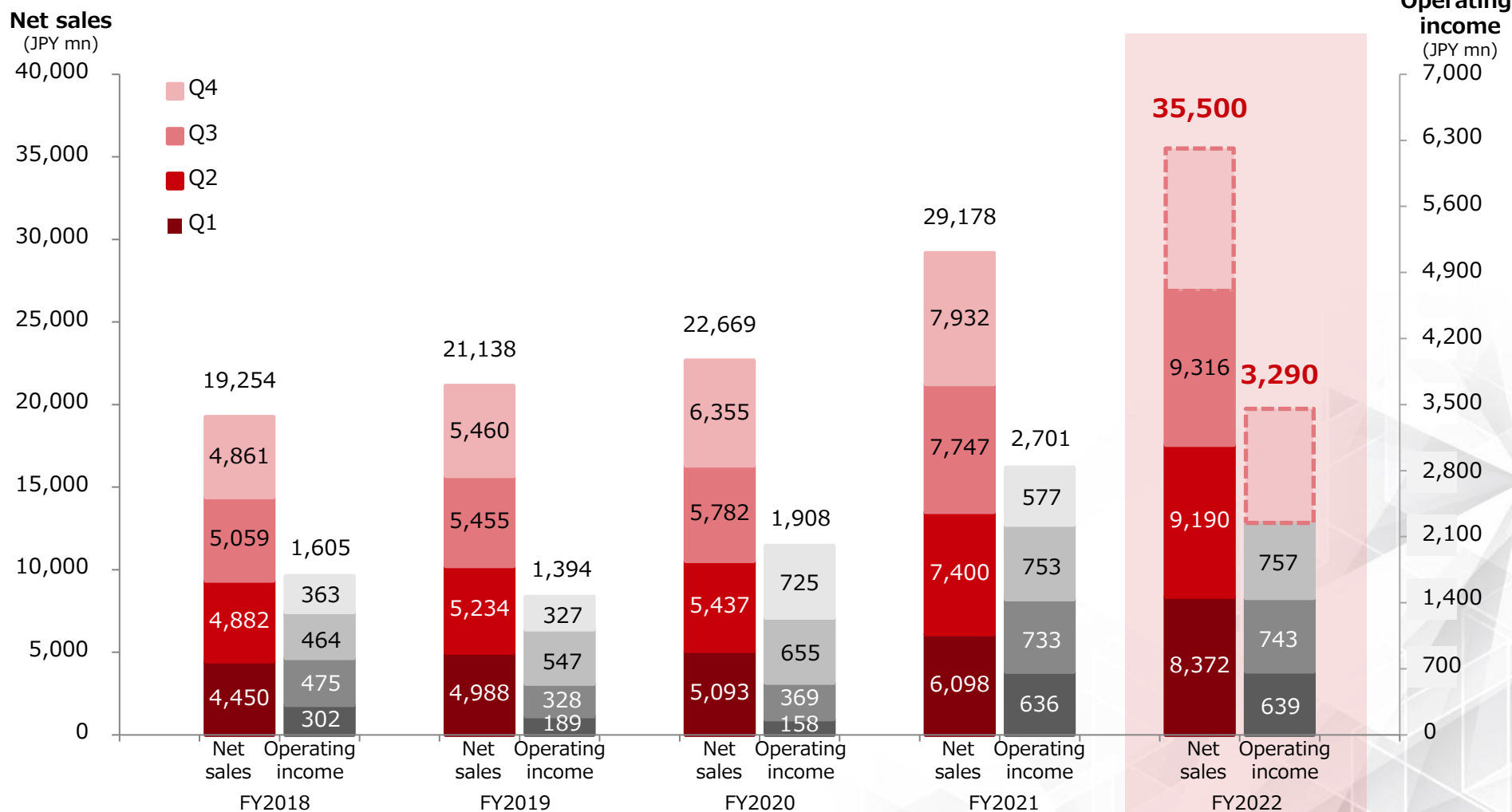
**While aggressively investing** in the Enterprise Business for its developing business basement and future growth, **EBITDA grew by 116.2% YoY** due to the growth of existing businesses and the positive impact of M&As.



# Trend in Net Sales and Operating Income

Achieved **record-high quarterly profit** in Q3.

Aiming for **record highs in net sales and profits** as a full year.



# Consolidated Balance Sheets for Q3 FY2022



DIGITAL HEARTS HLDGS.

| (JPY mn)                                | Q4 FY2021<br>(As of March 31, 2022) | Q3 FY2022<br>(As of December 31, 2022) | Change<br>from Q4 FY2021 |
|-----------------------------------------|-------------------------------------|----------------------------------------|--------------------------|
| <b>Total assets</b>                     | <b>17,565</b>                       | <b>19,913</b>                          | <b>2,347</b>             |
| Current assets                          | 10,392                              | 11,569                                 | 1,176                    |
| Cash and deposits                       | 5,208                               | 5,948                                  | 739                      |
| Noncurrent assets                       | 7,172                               | 8,343                                  | 1,171                    |
| Property, plant and equipment           | 693                                 | 1,100                                  | 407                      |
| Intangible assets                       | 5,094                               | 5,593                                  | 498                      |
| Goodwill                                | 4,763                               | 5,082                                  | 319                      |
| Investments and other assets            | 1,384                               | 1,649                                  | 265                      |
| <b>Total liabilities</b>                | <b>9,989</b>                        | <b>9,608</b>                           | <b>-380</b>              |
| Current liabilities                     | 9,679                               | 9,495                                  | -183                     |
| Short-term loans                        | 5,421                               | 5,106                                  | -314                     |
| Noncurrent liabilities                  | 309                                 | 113                                    | -196                     |
| <b>Total net assets</b>                 | <b>7,576</b>                        | <b>10,304</b>                          | <b>2,727</b>             |
| Shareholders' equity                    | 6,776                               | 8,838                                  | 2,062                    |
| Accumulated other comprehensive income  | 228                                 | 765                                    | 537                      |
| Subscription rights to shares           | —                                   | 6                                      | 6                        |
| Non-controlling interests               | 572                                 | 693                                    | 121                      |
| <b>Total liabilities and net assets</b> | <b>17,565</b>                       | <b>19,913</b>                          | <b>2,347</b>             |

# (Appendix) Q3 FY2022 Non-operating Income / Extraordinary Income and Loss



DIGITAL HEARTS HLDGS.

Non-operating income, extraordinary income and loss related to foreign exchange rate fluctuations, restructuring of overseas operations, and others.

## Non-operating income

¥**234**mn

- **Foreign exchange gain** **¥200mn**  
Exchange difference on intergroup loans to a U.S. subsidiary, LOGIGEAR CORPORATION.

## Extraordinary income

¥**41**mn

- **Settlement income** **¥41mn**  
Litigation settlement by LOGIGEAR CORPORATION, a U.S. subsidiary.

## Extraordinary loss

¥**178**mn

- **Business liquidation loss** **¥23mn**  
Losses associated with the withdrawal from a part of businesses of the subsidiary DIGITAL HEARTS Seoul Co., Ltd. (formerly Orgosoft Co., Ltd.), a subsidiary in South Korea.
- **Settlement payments** **¥37mn**  
Settlement payments for the Creative division.
- **Loss on transfer of business** **¥108mn**  
Losses associated with the separation of the advertising agency businesses specializing in Taiwan.

# Q3 FY2022 Financial Results by Segment and Full-year Forecast of FY2022

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Notice regarding earnings by segment

- Net sales by segment include inter-segment sales or transfers.  
Segment income is based on operating income.
- Some changes were made to the sub-segments of the Enterprise Business in Q1 FY2022.  
For this reason, the figures for FY2021 and earlier by sub-segments of the Enterprise Business are reclassified to reflect the change in sub-segments for comparison purposes.

## Sub-segments in FY2022 are amended to reflect changes made to the services of the Enterprise Business.

### ■ FY2021 and earlier

| Reportable segments         | Main Services                                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enterprise Business</b>  |                                                                                                                                                                 |
| <u>System testing</u>       | System testing<br>Vulnerability diagnosis                                                                                                                       |
| <u>IT service /Security</u> | <u>System development</u><br><u>Introduction of ERP and CRM</u><br><u>Penetration test</u><br>Security monitoring<br>IT support<br>IT engineer platform service |

### ■ From FY2022

| Reportable segments           | Main Services                                                                                                                           | Main Operating Companies                                                                        |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Enterprise Business</b>    |                                                                                                                                         |                                                                                                 |
| <u>QA solution</u>            | System testing<br>Vulnerability diagnosis<br><u>System development</u><br><u>Introduction of ERP and CRM</u><br><u>Penetration test</u> | AGEST, Inc.<br>LogiGear group<br>CEGB Co., Ltd.                                                 |
| <u>IT services and others</u> | Security monitoring<br>IT support<br>IT engineer platform service                                                                       | AGEST, Inc.<br>identity Inc.                                                                    |
| <b>Entertainment Business</b> |                                                                                                                                         |                                                                                                 |
| Domestic debugging            | Debugging                                                                                                                               | DIGITAL HEARTS Co., Ltd.                                                                        |
| Global and others             | Translation / LQA<br>Game software development<br>Customer support<br>Marketing support, etc.                                           | DIGITAL HEARTS Co., Ltd.<br>DIGITAL HEARTS CROSS group<br>FLAME Hearts Co., Ltd.<br>Aetas, Inc. |

\*The changes are underlined

#### (Reason for Change)

- Through cross-selling initiatives, increasing in the number of projects providing "one-stop" service including development, testing, and security services.
- Aggressive M&As have led to an expansion in our range of solutions and group synergy improvement.

# Summary of Financial Results by Segment



DIGITAL HEARTS HLDGS.

| (JPY mn)                | Q3 FY2021     | Q3 FY2022     | YoY Change    |
|-------------------------|---------------|---------------|---------------|
| <b>Net sales</b>        | <b>21,246</b> | <b>26,879</b> | <b>126.5%</b> |
| Enterprise              | 7,937         | 12,066        | 152.0%        |
| Entertainment           | 13,308        | 14,926        | 112.2%        |
| Adjustments             | —             | -113          | —             |
| <b>Operating income</b> | <b>2,123</b>  | <b>2,140</b>  | <b>100.8%</b> |
| Enterprise              | 403           | 313           | 77.9%         |
| Entertainment           | 2,884         | 3,206         | 111.1%        |
| Adjustments             | -1,164        | -1,379        | —             |
| <b>EBITDA</b>           | <b>2,568</b>  | <b>2,984</b>  | <b>116.2%</b> |
| Enterprise              | 644           | 835           | 129.6%        |
| Entertainment           | 3,069         | 3,495         | 113.9%        |

- High sales growth YoY over 1.5 times due to continuous **double-digit growth in existing businesses** and the **effects of M&As** conducted last year.
- Segment income declined in Q3 nine months due to **intensive strategic investments at AGEST, Inc.**, the core subsidiary of the Enterprise Business. On the other hand, in Q3 three months, **segment income increased due to sales growth and control of SG&A expenses**.
- In Q4 three months, as a highest season, **profitability is expected to improve** due to sales expansion.

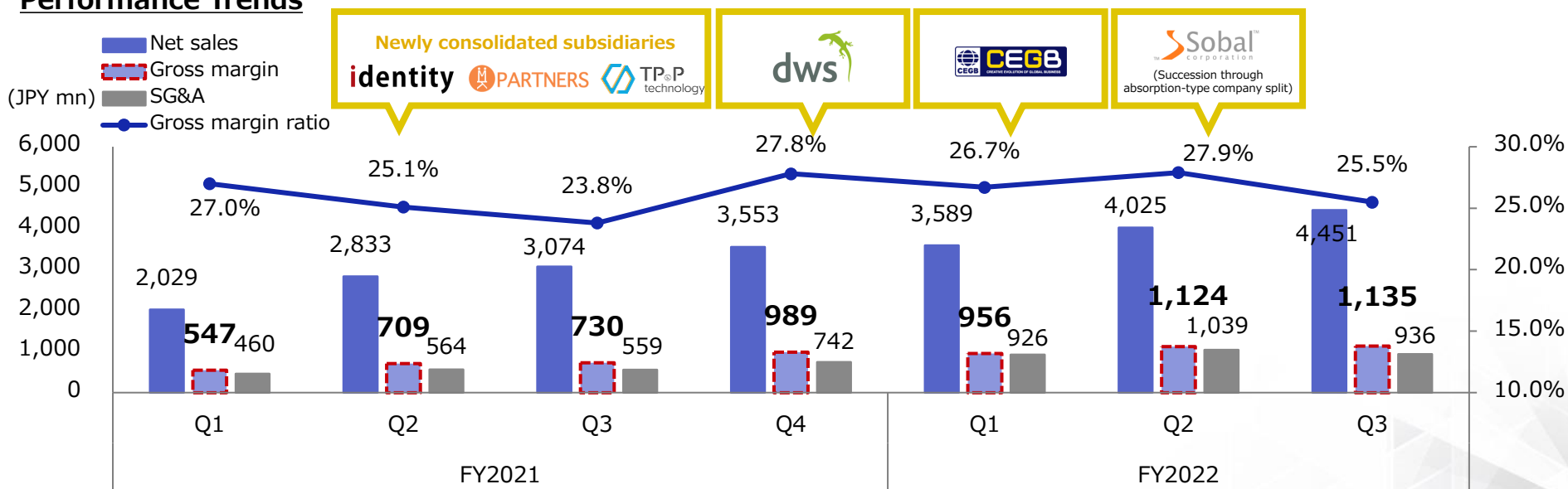
| (JPY mn)               | Q3 FY2021    | Q3 FY2022     | YoY Change    |
|------------------------|--------------|---------------|---------------|
| <b>Net sales</b>       | <b>7,937</b> | <b>12,066</b> | <b>152.0%</b> |
| QA solution            | 4,740        | 7,314         | 154.3%        |
| IT services and others | 3,196        | 4,751         | 148.6%        |
| <b>Segment income</b>  | <b>403</b>   | <b>313</b>    | <b>77.9%</b>  |
| <b>EBITDA</b>          | <b>644</b>   | <b>835</b>    | <b>129.6%</b> |

# Key KPIs of Enterprise Business

## Enterprise Business

- Net sales and gross profit remained steady, partly due to the contribution of M&As.
- In Q3, gross margin ratio of AGEST improved compared to Q2, but gross margin ratio of overseas subsidiaries declined due to smaller sales.

### Performance Trends



## QA solution division

### Number of clients with orders (\*)

FY2022 Q3  
**693** companies

FY2022 Q4 Target  
**830** companies

### Annual sales per client (\*)

FY2022 Q3  
¥**12**mn

FY2022 Q4 Target  
¥**12**mn

### Number of engineers

FY2022 Q3  
**993** People

FY2022 Q4 Target  
**1,100** people

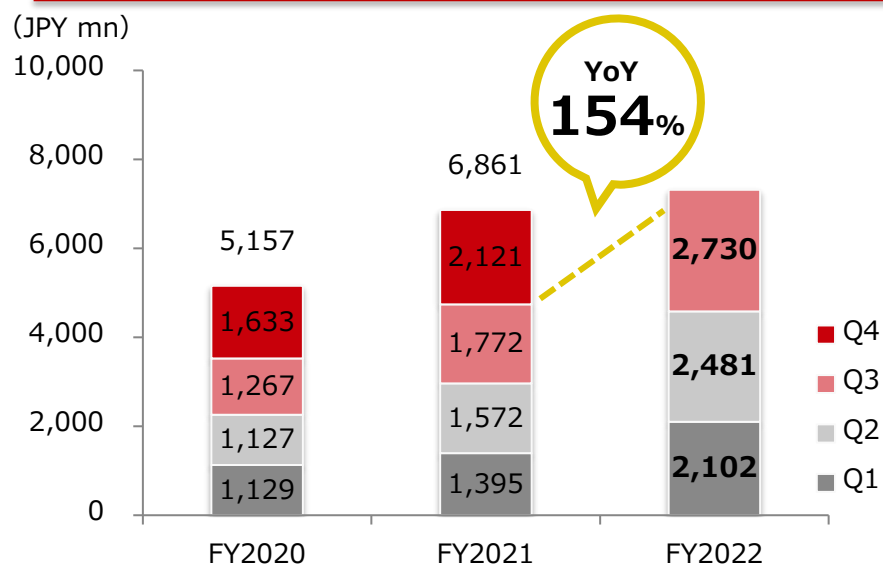
### Sales ratio of Advanced testing and Next-generation QA

FY2022 Q3  
**35.1%**

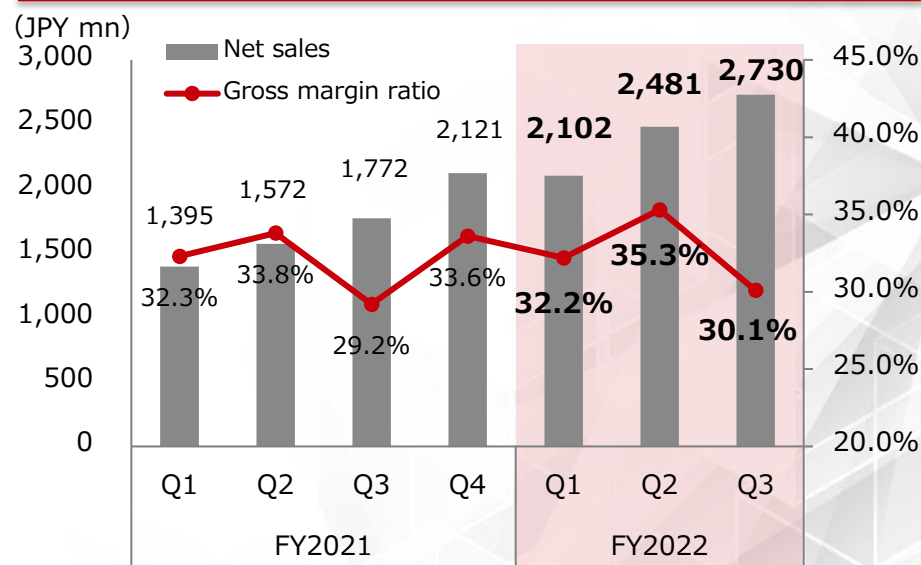
FY2022 Q4 Target  
**45.0%**

- **Expand transaction volume per client** by strengthening cross-selling of services.
- **Promote the enhancement of test engineers** through the succession of QA businesses of Sobal Corporation and the expansion of services, such as mutation testing, **utilizing specialized knowledge**.
- **CEGB Co., Ltd.**, acquired through M&A, contributed from Q1 FY2022. Sales grew **YoY 132.7%** even after excluding the consolidation benefits of CEGB Co., Ltd., etc.
- Lower gross margin ratio in Q3 affected by weaker margins of overseas subsidiaries. Expecting to **improve in Q4**, the busiest season, with sales expansion.

## Quarterly sales

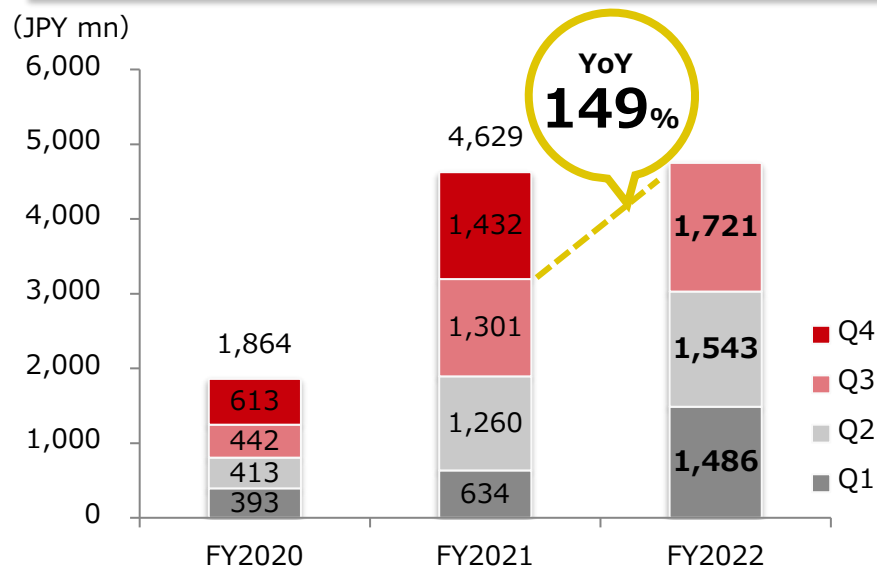


## Net sales and Gross margin ratio

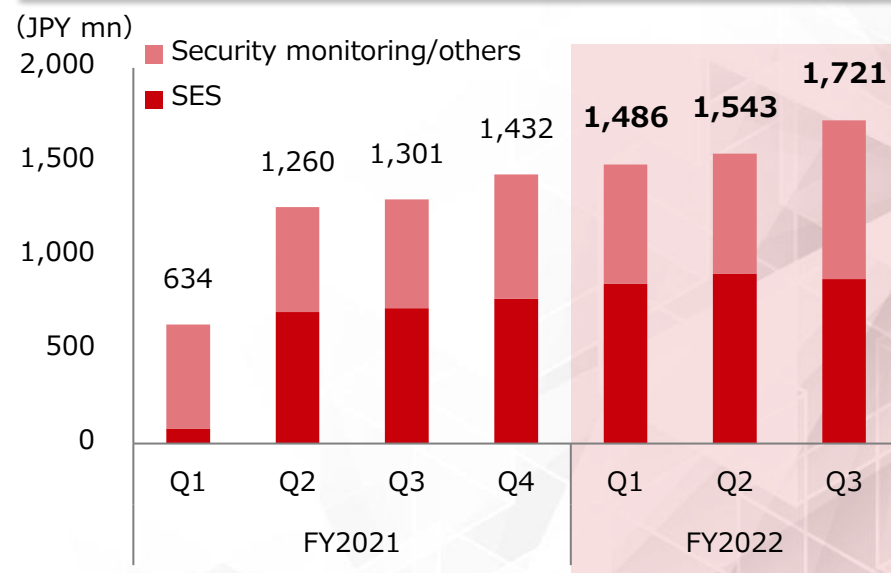


- The SES businesses grew steadily, as the number of engineers registered at **identity Inc.** reached to 25,000 people.
- Steady expansion of security monitoring services by capturing increasing demand against the backdrop of expansion of remote work, etc.

## Quarterly sales



## Quarterly sales by service

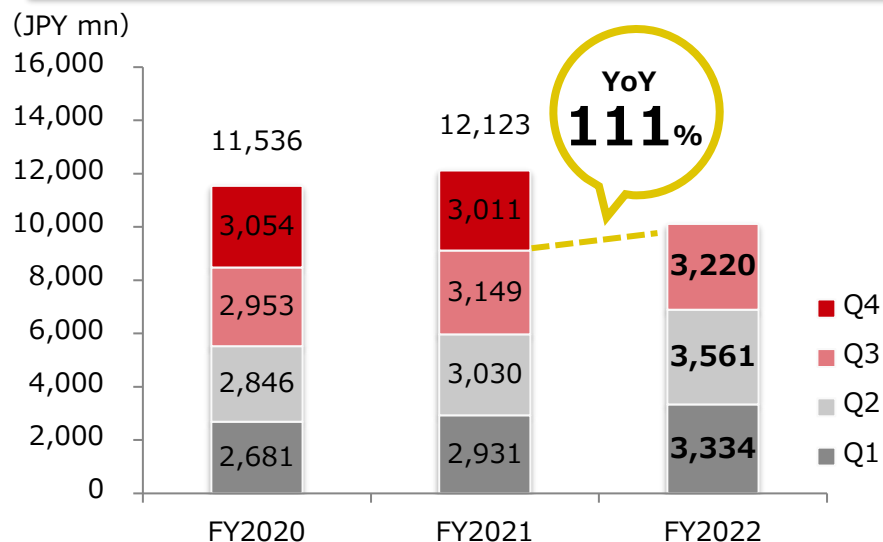


- **Achieve double-digit sales growth** in both the Domestic debugging and the Global and others, by steadily capturing growing demand against the backdrop of the booming console game market and accelerated overseas expansion of game content.
- **Segment income grew by double digits** thanks to sales increase and improved gross margin ratio in the Domestic debugging, and **the profit margin remained at a high level of 21.5%.**

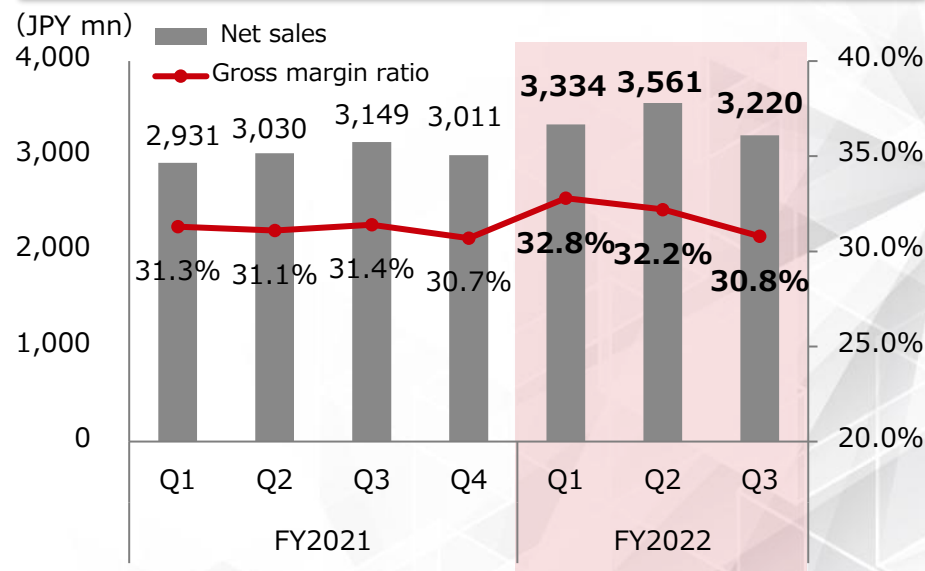
| (JPY mn)              | Q3 FY2021     | Q3 FY2022     | YoY Change    |
|-----------------------|---------------|---------------|---------------|
| <b>Net sales</b>      | <b>13,308</b> | <b>14,926</b> | <b>112.2%</b> |
| Domestic debugging    | 9,111         | 10,116        | 111.0%        |
| Global and others     | 4,196         | 4,809         | 114.6%        |
| <b>Segment income</b> | <b>2,884</b>  | <b>3,206</b>  | <b>111.1%</b> |
| <b>EBITDA</b>         | <b>3,069</b>  | <b>3,495</b>  | <b>113.9%</b> |

- **High sales growth in the Domestic debugging** driven by around YoY 1.4 times expansion of service for game consoles with increase in developments of new game titles.
- **Relatively higher level of sales in Q3**, despite the rebound from the busy period of 1H, and **maintained a over 30% gross margin ratio**, despite the rise in minimum hourly wages.
- **Aiming to improve employee satisfaction**, as a response to price hikes, the Company **decided to raise hourly wages** of “full-time” type game testers by ¥100 from April 2023 and to **raise the unit price of debugging service** with the higher added value through its abundant and talented human capital.

## Quarterly sales

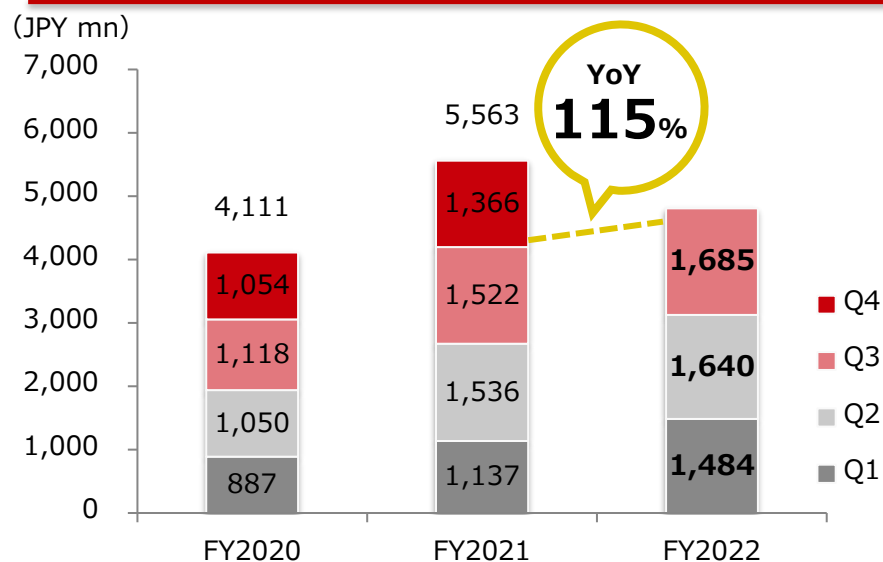


## Net sales and Gross margin ratio

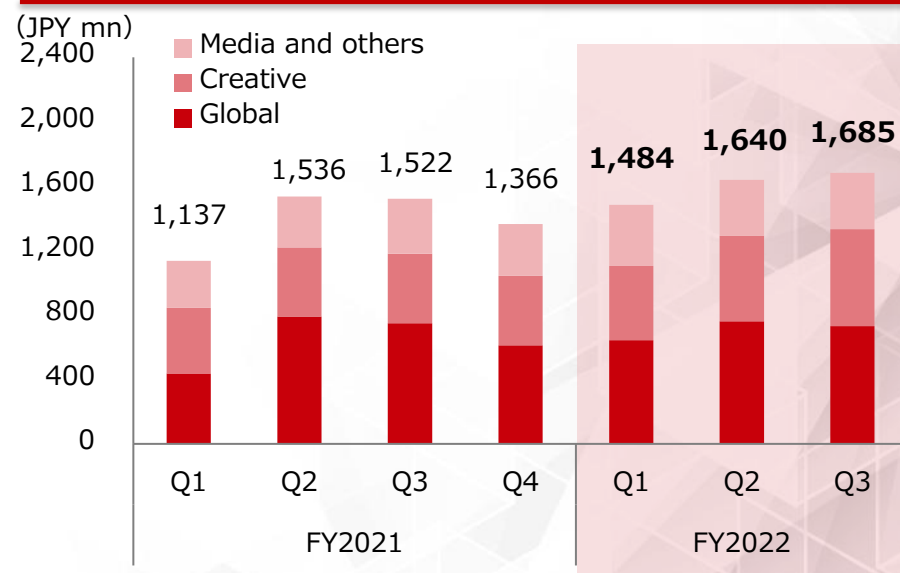


- **Achieved higher sales in all services** by improving the Group's internal collaboration even with increasing uncertainty of the Asian game market including China.
- Selection and concentration of businesses, such as **strengthening cross-border services in South Korea** and **separating the advertising agency businesses specializing in Taiwan**.
- By pursuing group synergies and strengthening initiatives with alliance partners such as **GameWith, Inc.**, aiming to further **expand our businesses and create new value**.

## Quarterly sales



## Quarterly sales by service



# FY2022 Consolidated Financial Forecast



DIGITAL HEARTS HLDGS.

- Aim for **record-high net sales and operating income** while accelerating investment for future growth.
- **The Enterprise Business will keep driving the growth of the group.**

| (JPY mn)                                       | Full-year FY2021<br>(Actual) | Full-year FY2022<br>(Forecast) | YoY Change    |
|------------------------------------------------|------------------------------|--------------------------------|---------------|
| <b>Net sales</b>                               | <b>29,178</b>                | <b>35,500</b>                  | <b>121.7%</b> |
| Enterprise                                     | 11,491                       | 15,375                         | 133.8%        |
| Entertainment                                  | 17,687                       | 20,125                         | 113.8%        |
| <b>Operating income</b>                        | <b>2,701</b>                 | <b>3,290</b>                   | <b>121.8%</b> |
| Operating income margin                        | 9.3%                         | 9.3%                           | +0.0points    |
| <b>Ordinary income</b>                         | <b>2,778</b>                 | <b>3,290</b>                   | <b>118.4%</b> |
| <b>Profit attributable to owners of parent</b> | <b>1,780</b>                 | <b>2,250</b>                   | <b>126.4%</b> |
| <b>EBITDA</b>                                  | <b>3,430</b>                 | <b>4,240</b>                   | <b>123.6%</b> |

# Growth Strategy

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**With stable growth of high profitable Entertainment Business, rapidly expand the Enterprise Business while utilizing M&A as well.**

## M&A growth

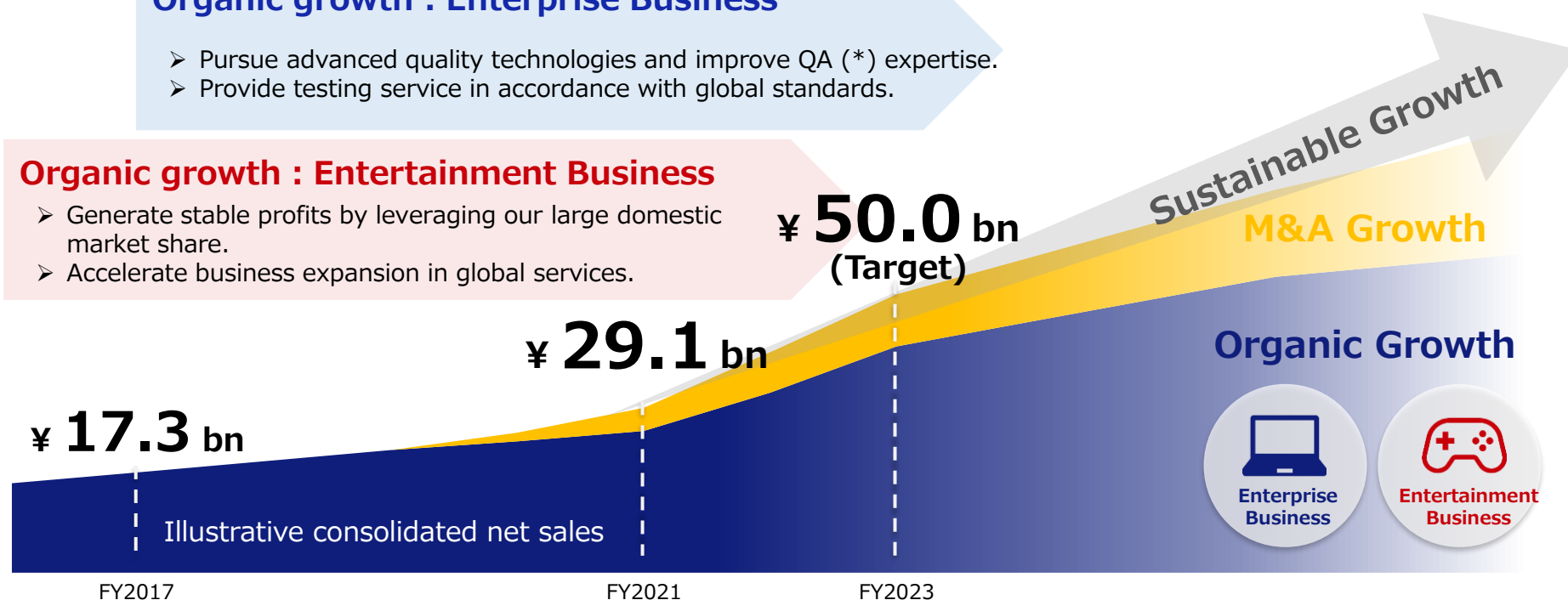
- Continue M&A aimed at expanding the pool of engineers and improving technological capabilities, such as test automation tools.

## Organic growth : Enterprise Business

- Pursue advanced quality technologies and improve QA (\*) expertise.
- Provide testing service in accordance with global standards.

## Organic growth : Entertainment Business

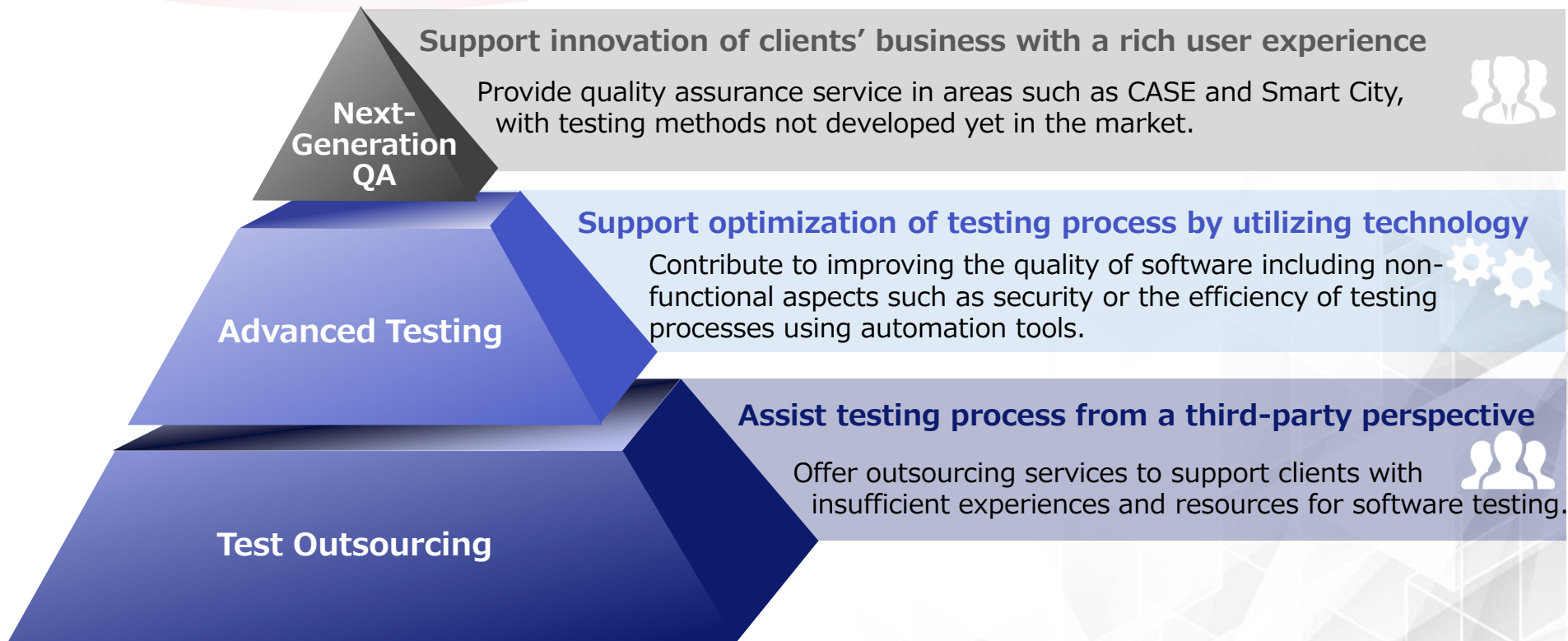
- Generate stable profits by leveraging our large domestic market share.
- Accelerate business expansion in global services.



• The illustrative consolidated net sales above is not a forecast of us and we do not promise it as described above.  
• QA...Quality Assurance  
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**By utilizing leading-edge quality technologies and developing next-generation QA human capital, to become a service provider of optimum QA solutions at a high level for diversifying needs.**

**SAVE the DIGITAL WORLD**



**Developed the business foundation, PP&T (People, Process, and Technology), in 1H.  
Keep strengthening the basement for further growth of the Enterprise Business.**

## Reinforce engineer human resources to improve the quality of software

- Next-generation QA engineers and test engineers with expertise in testing techniques
- Test operator teams with high efficiency and flexibility
- Unique model of recruitment and M&A to continuously reinforce human capital

## Pursuit advanced quality technologies and development of sustainable training model

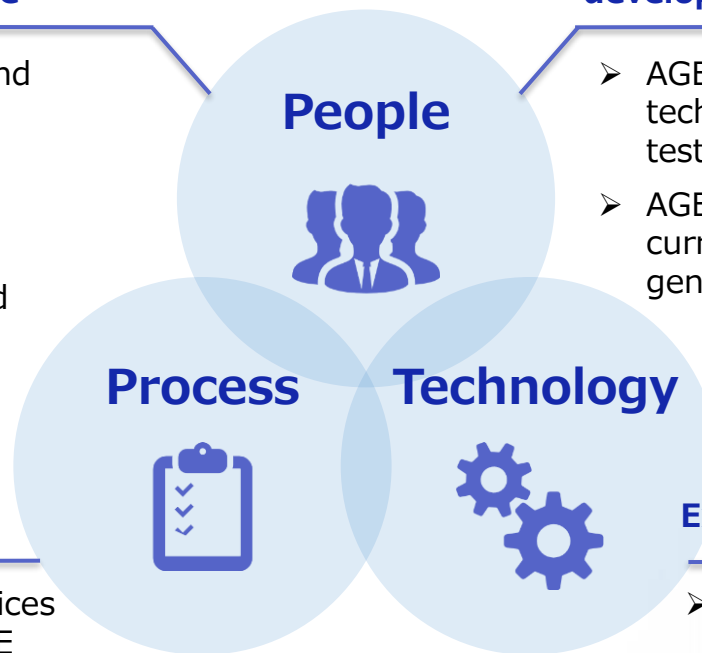
- AGEST Testing Lab. to develop testing techniques in new areas such as AI testing.
- AGEST Academy as in-house training curriculum for producing next-generation QA engineers.

## Standardize in complying with international standards

- Standardized quality of test services by complying with "ISO/IEC/IEEE 29119"
- Developing standards as best practice by combining international standards with front-line knowledge

## Expand technology-oriented services

- High quality testing service by utilizing global, state-of-the-art test automation tools
- Efficiency improvement by utilizing tools such as impact analysis and CI/CD



Establish PP&T as the Enterprise Business platform  
by bringing together experts from the frontline of the software testing industry.

## People



**Dr. Juichi Takahashi**

A pioneer in software testing in Japan. Holds a PhD in software testing and has published many works. Director and CTSO of AGESt, Inc., our subsidiary



**Mr. Rex Black**

Worldwide authority on software testing with many published works. Former president of the ISTQB.

## Process



**Mr. Yohei Takagi**

The first Japanese [ISO/IEC/IEEE 29119 Training Trainer]. Executive Officer of AGESt, Inc., our subsidiary.



**Dr. Stuart Reid**

The founder of the ISTQB. The convener of ISO Software Testing Working Group 26, which has published software testing standard, "ISO /IEC/IEEE 29119."

## Technology



**Dr. Yasuharu Nishi**  
**Lecturer, the University of Electro-Communications**

Researcher of AI products and President of NPO ASTER (Association of Software Test Engineering).



**Dr. Hironori Washizaki**  
**Professor, WASEDA University**

Researcher in agile development.



**Dr. Masahiko Kato**  
**Professor, University of Nagasaki**

Researcher in Security Testing.



**Mr. Kazutaka Jokura**

A former CTO in DMM.com LLC. Worked on expanding and training the company's engineers for seven years. Our Chief Technology Officer.



**Mr. Hung Nguyen**

Worldwide authority on software testing. The co-author of the bible for test engineers. Founder of our subsidiary LOGIGEAR CORPORATION.

Our unique human capital model of engineers, with testing engineer group including next-generation QA engineers, supporting the improvement of clients' software quality, and with test operating teams with high efficiency and flexibility.

## ■ Structure of Engineer Human Capital

### Next-generation QA engineer

The highest-class QA engineer with knowledge of both software development and testing to contribute to client's service quality improvement for all from development to post-release.

QA Consulting

Optimization of test coding

Whitebox Testing

Support for in-house testing

### Test engineer

Specialists of software testing from planning and designing in conventional QA services to test automation and security services.

Testing plan

Testing design

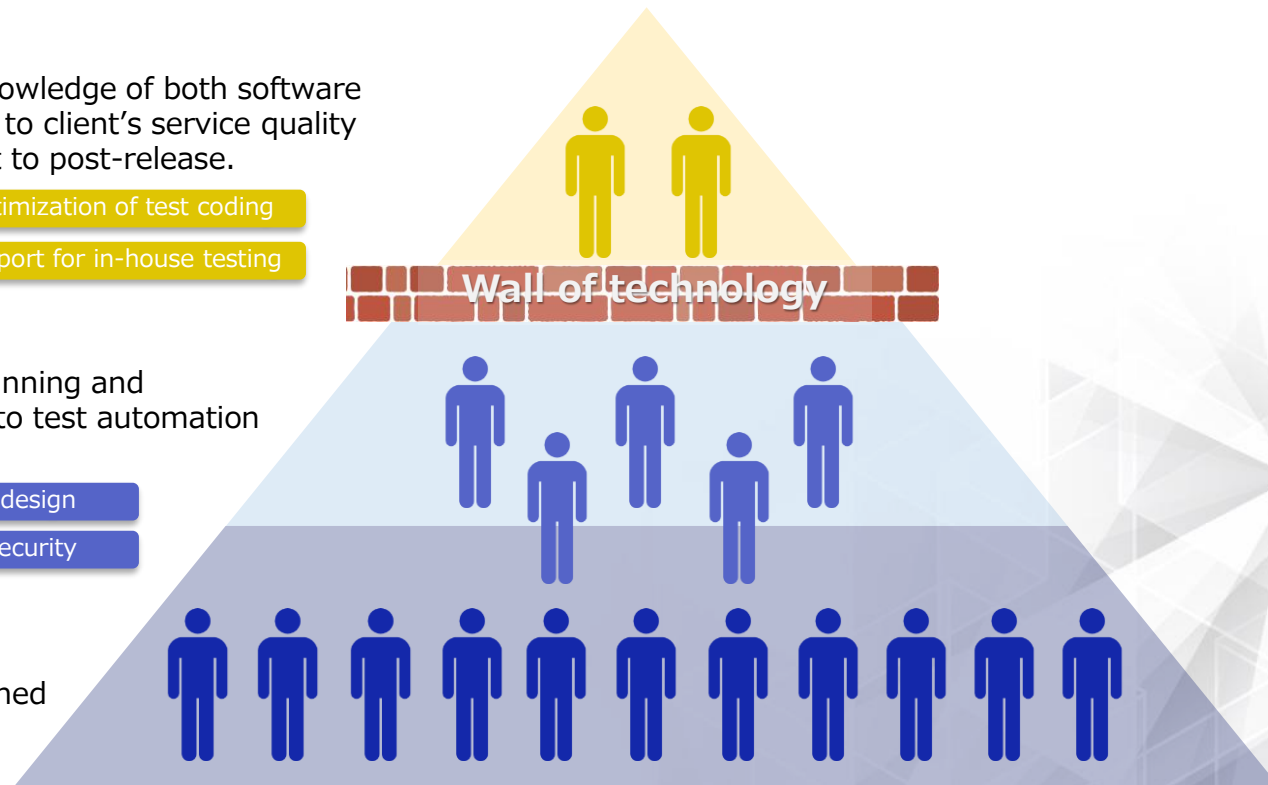
Test automation

Cyber Security

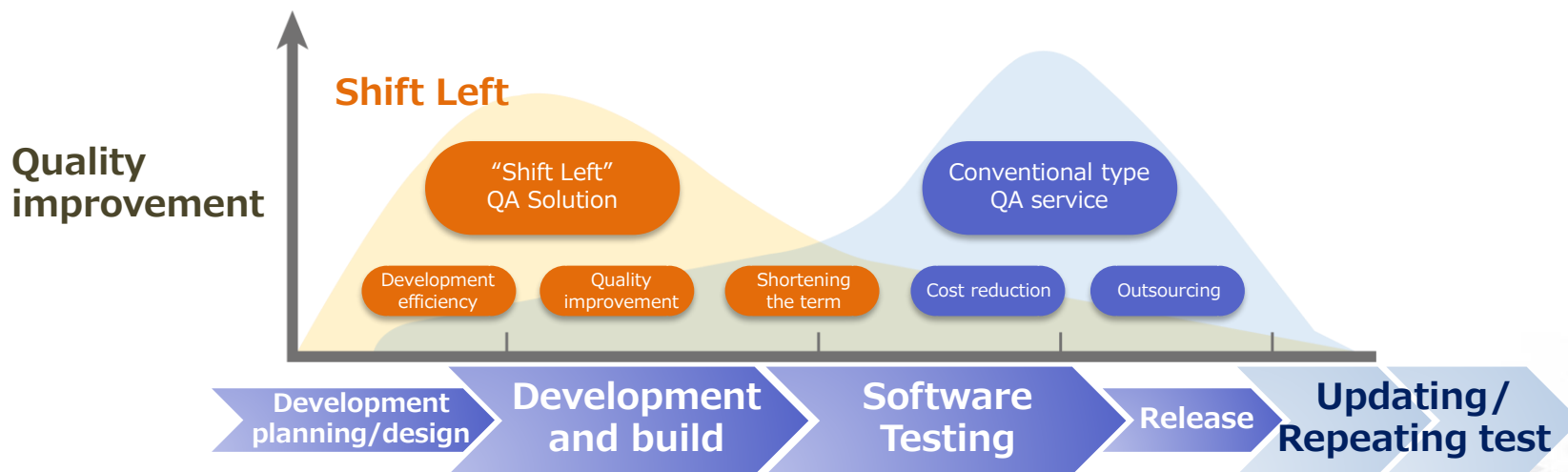
### Test operator

Testers who efficiently and flexibly implement software testing with designed testing processes.

Testing operation



With getting more complex, sophisticated, and diverse needs for software testing and bigger trend of in-house software development by end-user companies, AGEST started "Shift Left" QA solution.



## **AGEST** Providing Total QA Solutions from Development to Post-Release Response

### "Shift Left" QA Solution

- View of software development engineers
- Overall optimization to consider the impact to development process including post-release
- Coding optimization by source code analysis
- Comprehensive knowledge ranging from development to testing

### Conventional type QA services

- View of end users
- Partial optimization of the testing process before launching or during updates
- Check operation according to specifications
- Numerous test engineer resource

Provide a total solution of high-value-added "Shift Left" QA solution and high-efficient conventional QA services.

## AGEST - Providing Total QA Solutions from Development to Post-Release support



### "Shift Left" QA Solution

#### High added value + high efficiency

- Next-generation QA engineers and test engineers participate directly in projects
- Quality improvement of products from development engineer's perspective

Next generation QA engineer

Test engineer



Development efficiency

Quality improvement

Shortening the term

#### Low cost + high quality

- Improving the efficiency of the manual testing process by reflecting total optimization from the development process
- Test automation tools to match each client's product or service
- Implementation of cyber security measures with considering post-release
- Flexibility of testing execution leveraging abundant game debugging testers

Test engineer Test performer

Automation tool



Test process efficiency



Test automation

Cyber security

#### Image of the engineer



Next generation QA engineer  
(¥1,000K per man/month)



Test engineer  
(¥700K to ¥800K per man/month)



Test operator  
(¥500K to ¥600K per man/month)

### Conventional type QA service

#### Low cost

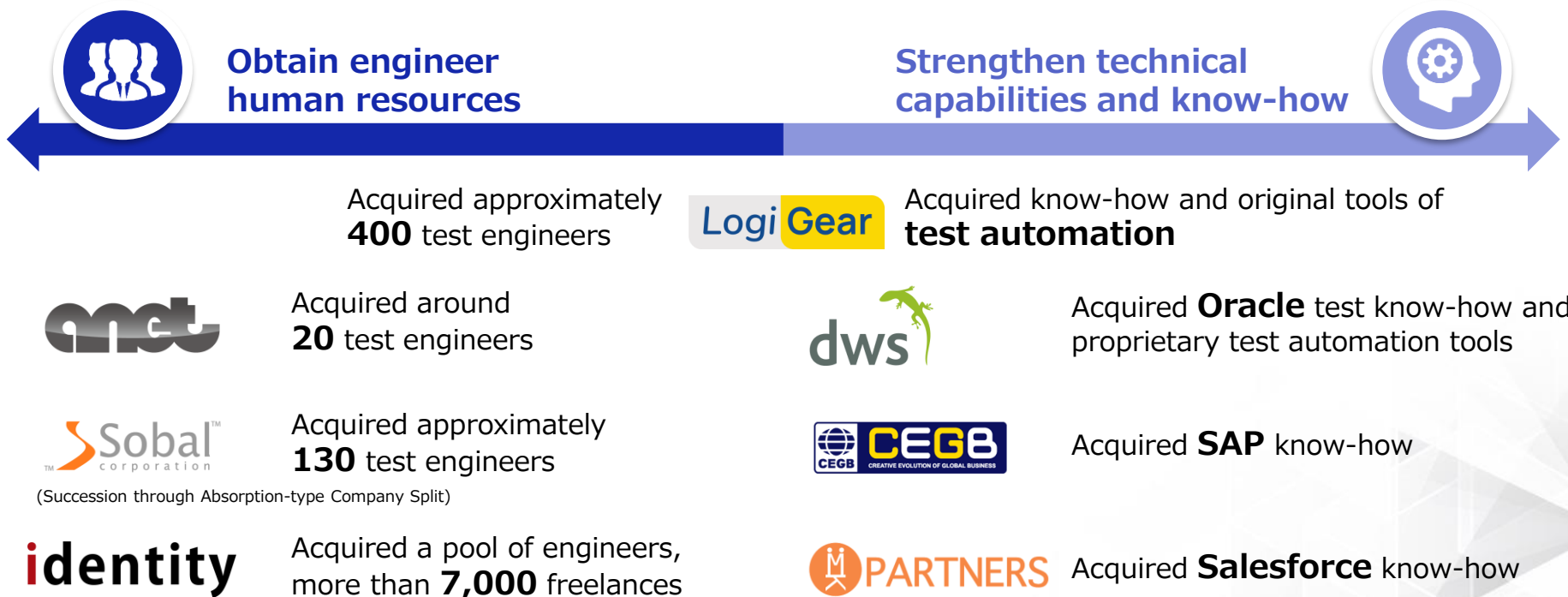
Cost reduction

Outsourcing

- Efficiently and flexibly provide a large number of test operators



Accelerate the business growth by M&As aimed at acquiring engineers and technical capabilities.



## Resolution of the equity finance (Stock acquisition rights)

**Transaction size (plan) Approx. ¥4.2 billion**

(Approximate amount after payment of expenses)\*

**\*Procurement amount as of January 31, 2023: ¥1.05 billion**

**Exercise period: July 20, 2022 to July 19, 2024**

### Purposes

- I. Standby funds for future M&A
- II. Repayment of past M&A bank loans
- III. Expenses for R&D initiatives and recruitment and training of engineers

\*Transaction size amounts (plan) may increase or decrease if the exercise price is revised or if the acquisition rights are not exercised during the period.

## Strategic growth through M&As following strict guidelines

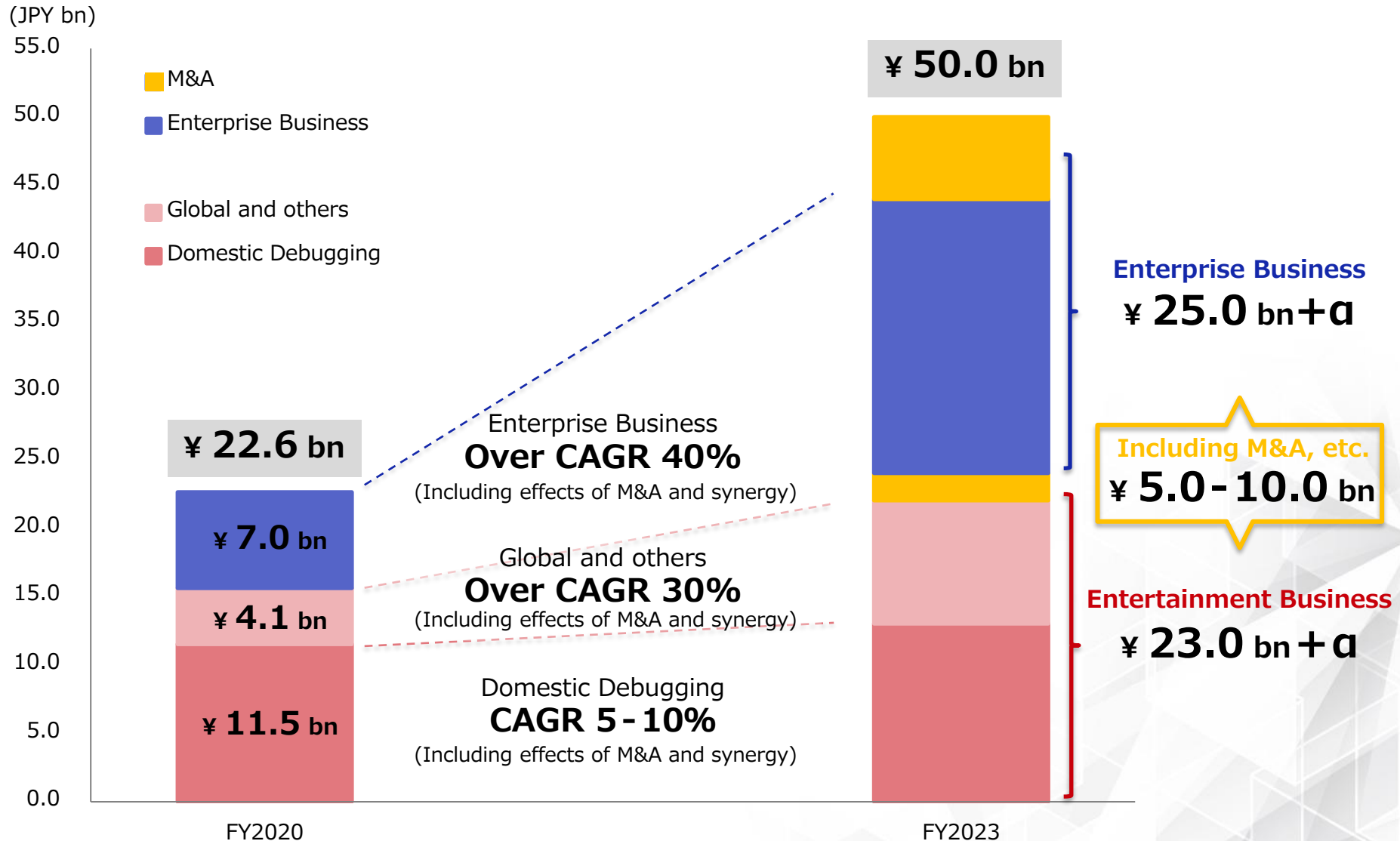
### M&A Strategy

1. **Strict ROIC standards** to maintain higher investment efficiency and profitability  

$$*ROIC = EBITDA \times (1 - \text{effective tax rate}) \div (\text{interest-bearing debt} + \text{shareholders' equity})$$
2. Targeting companies with **future growth potential** and **current stable profitability**
3. Well-balanced PMI initiatives between its organic growth and synergies with our group

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target companies         | <p>To obtain engineer human resources</p> <ul style="list-style-type: none"> <li>- Software testing companies</li> <li>- Companies with engineers especially for development of open systems</li> <li>- SES providers with rich human resources as own employee</li> </ul> <p>To strengthen technical capabilities</p> <ul style="list-style-type: none"> <li>- ERP-related service providers in Japan</li> </ul> |
| Size of target companies | <p>Net sales: ¥0.5 - 3.0 bn</p> <p>Number of engineers: 30 – 150 engineers</p> <p>Acquisition price: Max. ¥3.0 bn</p>                                                                                                                                                                                                                                                                                             |
| Number of projects       | <p>Around 2-3 projects per year as a plan</p>                                                                                                                                                                                                                                                                                                                                                                     |
| Governance               | <ul style="list-style-type: none"> <li>- Internal Investment Committee from various views including business operations, legal, finance, HR, and others.</li> <li>- Board of Directors including counsel from outside directors who have knowledge and experience in M&amp;As or finance.</li> </ul>                                                                                                              |

# Sales Targets



# Medium-Term Targets (FY2021-FY2023)



DIGITAL HEARTS HLDGS.

## FY2023 Target

| Group Business                           | <FY2020 Result>  | <FY2021 Result>    |   | <FY2023 Target>           |
|------------------------------------------|------------------|--------------------|---|---------------------------|
| Consolidated Sales                       | ¥22.6 bn         | ¥29.1 bn           | » | ¥50.0 bn                  |
| ROIC (*1)                                | 16.8%            | 22.0%              | » | over 15%                  |
| M&A and Alliances                        | 3 projects       | 3 projects         | » | 5 projects<br>(in 3years) |
| Number of Clients in Japan<br>as a Group | 878<br>companies | 1,005<br>companies | » | 2,000<br>companies        |

### SDGs

|                                                         |              |               |   |               |
|---------------------------------------------------------|--------------|---------------|---|---------------|
| Number of IT Human<br>Resources incl. Qualitist (*2)    | 4,517 people | 10,660 people | » | 20,000 people |
| Female Managers Ratio<br>(ratio to total managers) (*3) | 10.7%        | 11.8%         | » | over 20%      |

\*1 ROIC=EBITDA×(1-effective tax rate)÷(interest-bearing debt+shareholders' equity)

\*2 Qualitist...Our original term for specialists contributing to quality incl. engineers

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# Appendix

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# Why Invest in DIGITAL HEARTS

**One of the few  
testing companies in Japan**



Ratio of  
outside directors  
**50.0%**



Employment creation  
for more than  
**8,000** testers



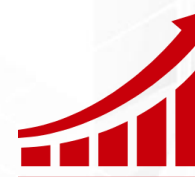
**Business that supports  
Digital security**



Foreign staff  
members of more  
than  
**30** nationalities



High sales growth of  
**CAGR 14% (\*)**



Our mission

## SAVE the DIGITAL WORLD

Market environment

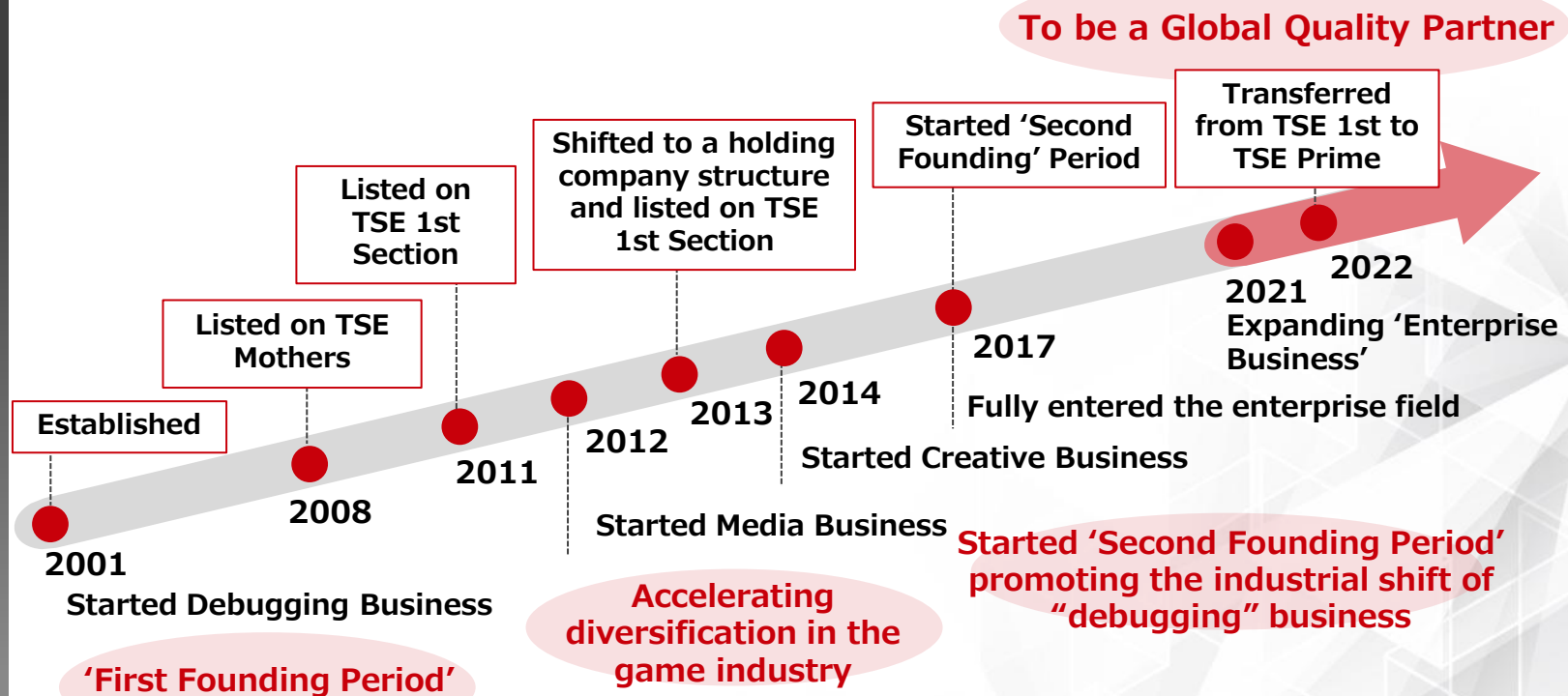
Growth of console game market

Growth of mobile game market

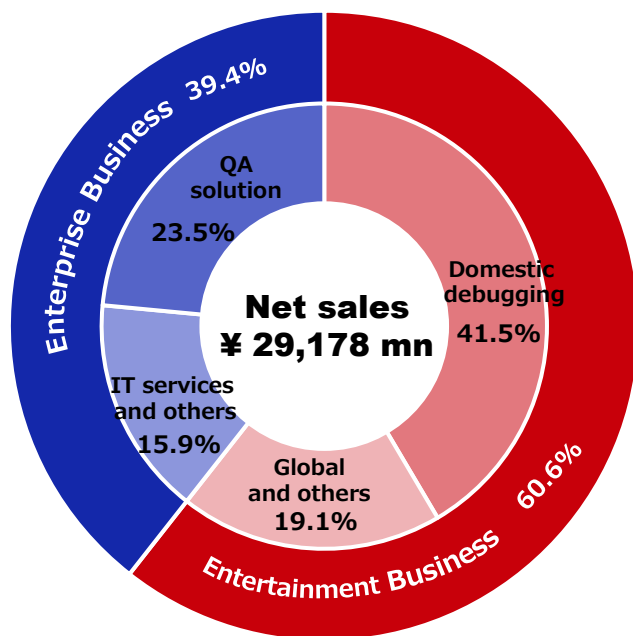
Expansion of IoT

Expansion of DX

History



## Our core business: QA(Quality Assurance) and Debugging



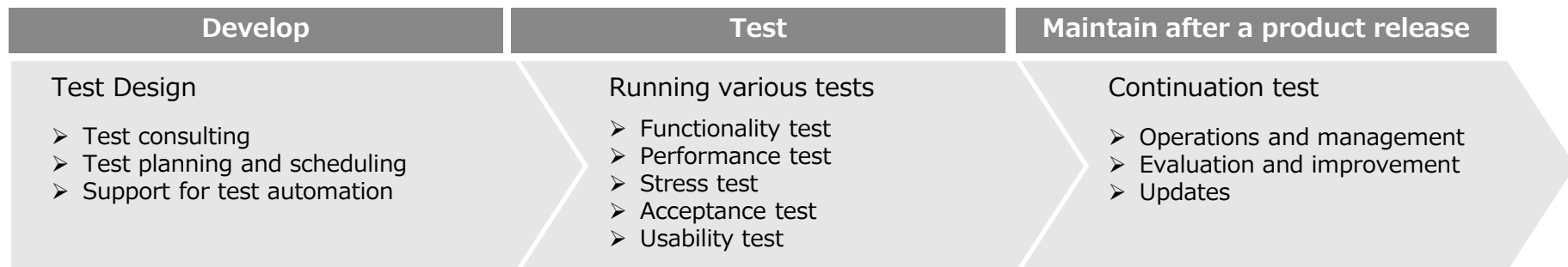
## Sales breakdown by segment (FY2021)

\*Segments include inter-company sales and/or transfers.

|                        |                        |       |                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enterprise Business    | QA solution            | 23.5% | <ul style="list-style-type: none"> <li>➤ Testing for business systems incl. online</li> <li>➤ Support for test automation</li> <li>➤ Security test</li> <li>➤ Introduction of ERP and CRM</li> <li>➤ System development</li> </ul>                                                                     |
|                        | IT services and others | 15.9% | <ul style="list-style-type: none"> <li>➤ IT engineer platform service</li> <li>➤ Security monitoring</li> <li>➤ IT support</li> </ul>                                                                                                                                                                  |
| Entertainment Business | Domestic debugging     | 41.5% | <ul style="list-style-type: none"> <li>➤ Debugging for console games, mobile games, etc.</li> </ul>                                                                                                                                                                                                    |
|                        | Global and others      | 19.1% | <ul style="list-style-type: none"> <li>➤ Translation, LQA*, and localization for game software</li> <li>➤ Marketing support for game launching in overseas markets</li> <li>➤ Game development and CG development</li> <li>➤ Game information site "4Gamer.net"</li> <li>➤ Customer support</li> </ul> |

# Overview of System Testing and Debugging

## Our Services



## Outline of Services

| Service        | Description                                                               | Main client                                                                                                                          | Barriers to entry                                                                                                                                                                                                        | Outsourced Projects Ratio |
|----------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| System Testing | Detection of bugs in enterprise systems from a test-engineers' knowledge. | <ul style="list-style-type: none"><li>– System integrators</li><li>– Development vendors</li><li>– Core system enterprises</li></ul> | <p>Medium</p> <p>↑ Personnel shortage in IT Industry.</p> <p>↑ Knowledge and expertise on software testing is required.</p>                                                                                              | Low                       |
| Debugging      | Detection of bugs in games from a player's perspective.                   | <ul style="list-style-type: none"><li>– Game makers</li></ul>                                                                        | <p>High</p> <p>↑ A license for purchasing dedicated equipment for debugging is required.</p> <p>↑ Knowledge and expertise on human resource management to accommodate changeable development schedules are required.</p> | High                      |

## ISTQB Global Partner (One of three companies in Japan)



Largest class  
in Japan

Number of people  
with ISTQB qualifications  
**365 people**

(Consolidated base as of March 31,2022)

### What is the ISTQB?

ISTQB is an international accreditation body for software testing.

There are four levels defined for the program: Silver, Gold, Platinum, and Global. To be eligible for the Global level, a group has to have at least one Platinum-level company and Gold-level companies in two or more countries.

## Diverse automation tools

One of the largest variety of tools  
in the domestic software testing industry



Selenium

appium

## Supported by global authorities in software testing



Dr. Stuart Reid

The founder of the ISTQB. The convener of ISO Software Testing Working Group 26



Mr. Rex Black

Former President of the ISTQB



Mr. Hung Nguyen

The co-author of a bible for test engineers.



Dr. Juichi Takahashi

A pioneer in software testing in Japan who has published many works.

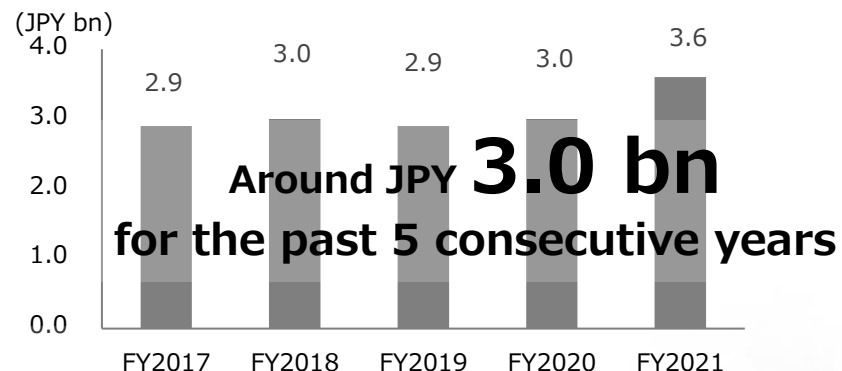
## Market leader in domestic debugging service

Debugging service involvement ratio  
among top 100 new console game titles \*

Approx. **75%**

\*Based on an internal investigation

## Strong operating profits



## Passionate talents who love game



Approx. **8,000**  
registered testers

## Abundant and wide variety of test terminals



Game consoles  
**2,054**



Smartphones  
**6,782**  
(As of March 31, 2022)

## Over 20 locations



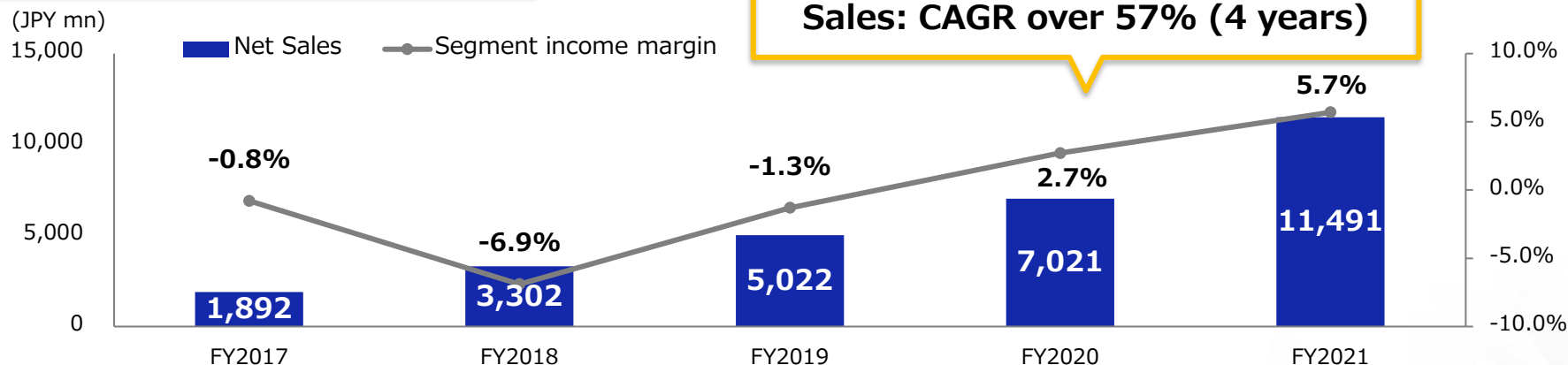
Japan  
**13**

Global  
**8**

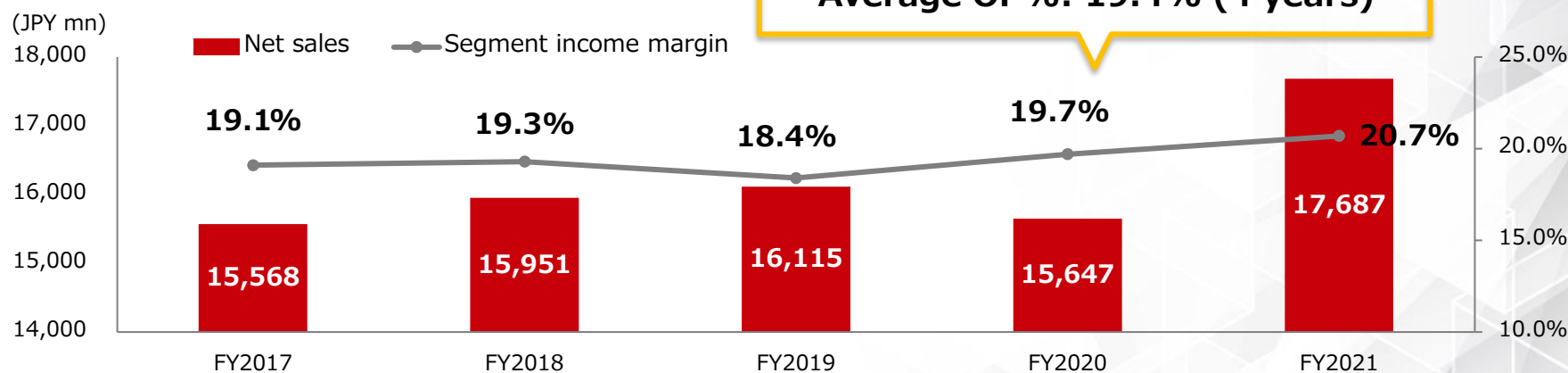
(As of March 31, 2022)

## Rapid expansion of the Enterprise Business using the Entertainment Business as a foundation.

### Enterprise Business



### Entertainment Business

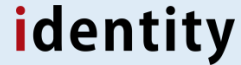


# Consolidated Financial Statement



DIGITAL HEARTS HLDGS.

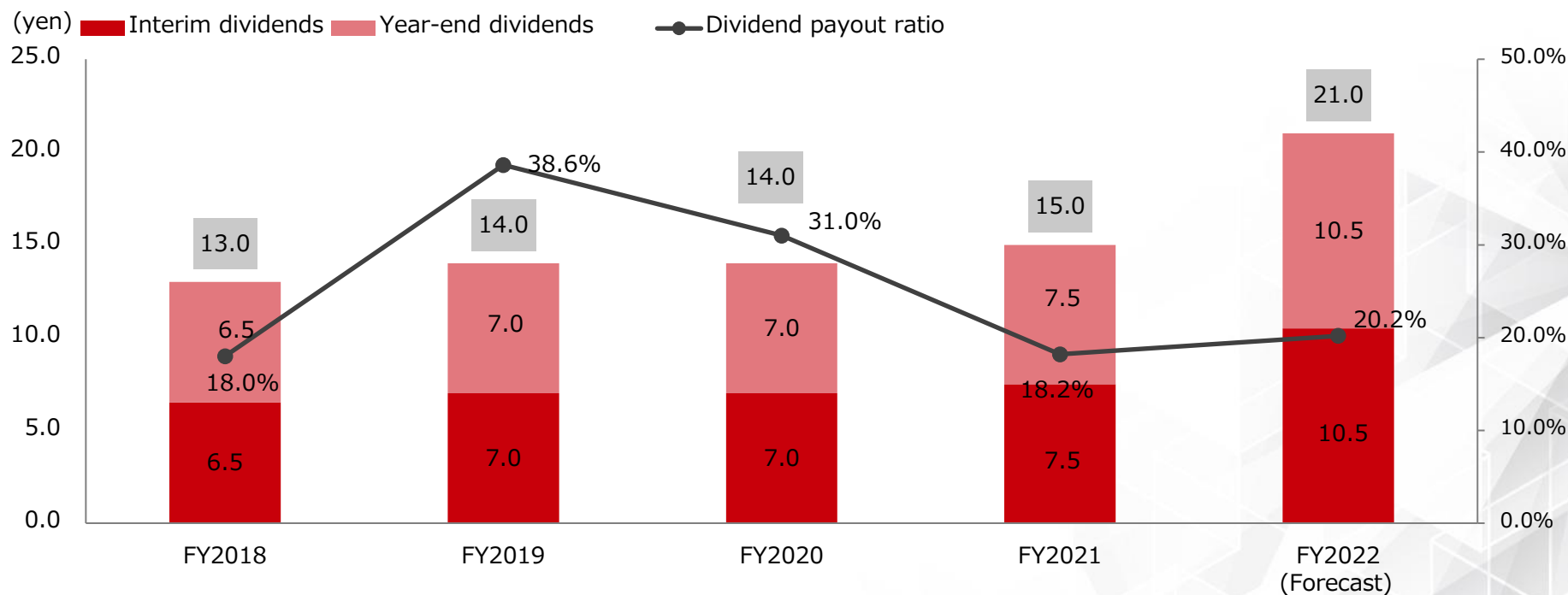
| (JPY mn)                                            | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 |
|-----------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Net sales                                           | 13,285 | 15,011 | 15,444 | 17,353 | 19,254 | 21,138 | 22,669 | 29,178 |
| Enterprise Business                                 | 1,713  | 2,382  | 1,952  | 1,892  | 3,302  | 5,022  | 7,021  | 11,491 |
| Entertainment Business                              | 11,609 | 12,696 | 13,544 | 15,568 | 15,951 | 16,115 | 15,647 | 17,687 |
| Adjustments                                         | -39    | -70    | -52    | -108   | -0     | -      | -      | -      |
| Operating income                                    | 1,517  | 1,963  | 1,906  | 1,735  | 1,605  | 1,394  | 1,908  | 2,701  |
| Enterprise Business                                 | 50     | 71     | 203    | -14    | -226   | -67    | 188    | 649    |
| Entertainment Business                              | 1,915  | 2,379  | 2,453  | 2,966  | 3,086  | 2,964  | 3,077  | 3,668  |
| Adjustments                                         | -447   | -486   | -750   | -1,215 | -1,254 | -1,503 | -1,356 | -1,616 |
| Operating income margin                             | 11.4%  | 13.1%  | 12.3%  | 10.0%  | 8.3%   | 6.6%   | 8.4%   | 9.3%   |
| Enterprise Business                                 | 2.9%   | 3.0%   | 10.4%  | -      | -      | -      | 2.7%   | 5.7%   |
| Entertainment Business                              | 16.5%  | 18.7%  | 18.1%  | 19.1%  | 19.3%  | 18.4%  | 19.7%  | 20.7%  |
| Profit attributable to owners of parent             | 539    | 361    | 795    | 1,200  | 1,575  | 792    | 974    | 1,780  |
| Total assets                                        | 8,272  | 6,533  | 7,651  | 8,575  | 9,832  | 10,637 | 14,338 | 17,565 |
| Current assets                                      | 5,756  | 5,064  | 6,221  | 6,813  | 7,403  | 7,453  | 9,744  | 10,392 |
| Cash and deposits                                   | 3,058  | 2,197  | 3,344  | 3,894  | 4,197  | 3,739  | 5,076  | 5,208  |
| Noncurrent assets                                   | 2,516  | 1,469  | 1,430  | 1,761  | 2,428  | 3,183  | 4,593  | 7,172  |
| Goodwill                                            | 1,169  | 437    | 201    | 150    | 481    | 1,027  | 2,467  | 4,763  |
| Total liabilities                                   | 4,104  | 3,444  | 4,793  | 5,005  | 4,819  | 5,198  | 8,024  | 9,989  |
| Interest-bearing liabilities                        | 1,865  | 1,367  | 1,646  | 1,610  | 1,764  | 2,553  | 4,797  | 5,590  |
| Total net assets                                    | 4,168  | 3,089  | 2,858  | 3,570  | 5,012  | 5,438  | 6,314  | 7,576  |
| Shareholders' equity ratio                          | 4,092  | 2,814  | 2,632  | 3,369  | 4,791  | 4,922  | 5,691  | 7,004  |
| Shareholders' equity ratio                          | 49.5%  | 43.1%  | 34.4%  | 39.3%  | 48.7%  | 46.3%  | 39.7%  | 39.9%  |
| Net cash                                            | 1,193  | 830    | 1,698  | 2,283  | 2,433  | 1,186  | 278    | -382   |
| Debt Equity Ratio                                   | 0.5    | 0.5    | 0.6    | 0.5    | 0.4    | 0.5    | 0.8    | 0.8    |
| Net cash provided by operating activities           | 870    | 1,080  | 1,825  | 1,436  | 889    | 1,086  | 1,416  | 3,077  |
| Net cash used in investing activities               | -568   | -17    | -610   | -618   | 62     | -1,018 | -1,813 | -2,537 |
| Net cash provided by (used in) financing activities | -950   | -1,913 | -69    | -250   | -693   | -515   | 1,730  | -546   |
| ROE                                                 | 13.8%  | 10.5%  | 29.2%  | 40.0%  | 38.6%  | 16.3%  | 18.4%  | 28.1%  |
| Dividend Payout Ratio                               | 37.6%  | 60.4%  | 32.3%  | 20.9%  | 18.0%  | 38.6%  | 31.0%  | 18.2%  |

|                        | Aims                                | Past M&As                                                                                                                                  |                                                                                                                                         |                                                                                                                                                                                                                                          |
|------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enterprise Business    | Engineer acquisition                | <br>Software testing engineers in Japan                   | <br>Software development engineers in Vietnam        | <br>Highly skilled domestic freelance engineers                                                                                                       |
|                        | Technological capabilities          | <br>Test automation tools Offshore in Vietnam             | <br>Salesforce consulting                             | <br>Test automation tools for Oracle software<br><br>SAP expertise |
| Entertainment Business | Services to complement localization | <br>Japan's largest game information website "4Gamer.net" | <br>Game software development/CG content development |                                                                                                                                                                                                                                          |
|                        | Geographical expansion              | <br>Game translation in South Korea                     | <br>Game translation in Taiwan                     | <br>Marketing and promotion support in China and Asian countries                                                                                     |

## Basic Policy to Return Profits to Shareholders

While securing sufficient internal reserves to invest in business growth and strengthen our management structure, stable dividends to shareholders with a payout ratio of 20% as the minimum target

## Changes in dividends





## Major risks

## Countermeasures

### 1. Leakage of confidential information

- Prohibiting staff members from bringing personal items into the test room
- Physical security measures including access control with fingerprint authentication and the installation of security cameras
- Introduction of a personal reference system that applies to all registered testers

### 2. Obsolescence of existing services by technological innovation

- Focusing on the application of the latest technologies, including a test automation project
- The development of new services to improve added value

### 3. Reduction of productive population in Japan

- Developing internal training programs that will enable the active participation of members with diverse generational, racial, and other backgrounds
- Strategically acquiring human resources through our overseas offices

### 4. Expansion of corporate acquisition and new businesses

- In-depth market research and due diligence
- Reducing risks by building a system for appropriate business management after acquisition

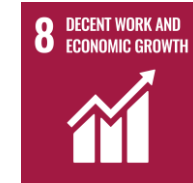
# (Ref.) Our Aims for Sustainable Value Creation

## Our Major Initiatives and Sustainable Development Goals (SDGs)

### Human resource

#### To resolve the shortage of IT human resource

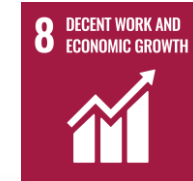
- Internal support system for obtaining software test certification of "JSTQB".
- Provide world-class test engineer training program in "AGEST Academy" for employees.
- Provide educational opportunities through collaborations with METI, local governments including Osaka and Gunma prefecture, correspondence high schools, NPOs, and career transition support offices.



### Human resource

#### Workplace for diverse human resources

- Provide workplaces for diverse people such as students, part-timers, young actors and musicians, and people with disabilities at test centers with over 3,000 people every day.
- Provide employment opportunities through the operation of the Tokyo Metropolis-Certified Social Firm.
- Employ foreign nationalities of more than 30 countries/areas, such as Asia, Europe and the U.S., who engage in translation/linguistic debugging service, etc.



### Technology

#### To realize a secure and safe digital society

- Established "AGEST Testing Lab. " to promote research on new software testing methods to support the evolving software society through industry-academic collaboration.
- Launched factory cyber security solutions to Japan market collaboratively with four companies including Siemens K.K.



### Communities

#### To revitalize local community and resolve IT disparities

- Create jobs throughout nationwide test centers (Lab.) and promote teleworking/work-from-home style by Remote Debugging service.
- Contribute to cyber security measures for local communities and SMEs by acquiring a certification from Information-technology Promotion Agency, Japan (IPA).



✓ **DIGITAL HEARTS HLDGS.**  
(Holding Company)

(As of December 31, 2022)

## Enterprise Business

### **AGEST, Inc.**

System testing, Cyber-security, etc.



### **LogiGear Group**

System testing, Test automation support



### **MK Partners, Inc.**

Salesforce consulting



### **TPP SOFT, JSC**

System development



### **DEVELOPING WORLD SYSTEMS LIMITED**

Introduction and maintenance support for Oracle products



### **identity Inc.**

IT freelance engineer platform service



### **CEGB Co., Ltd.**

SAP implementation and operation support, system development support, etc.



## Entertainment Business

### **DIGITAL HEARTS Co., Ltd.**

Game debugging, Localization, etc.



### **DIGITAL HEARTS CROSS Group**

Marketing support, etc.



### **DIGITAL HEARTS (Shanghai) Co., Ltd.**

Game debugging, Localization, etc.



### **DIGITAL HEARTS USA Inc.**

Game debugging, Localization, etc.



### **DIGITAL HEARTS Seoul Co., Ltd.**

Game translation, Marketing support, etc.



### **Digital Hearts Linguitronics Taiwan Co., Ltd.**

Game translation



### **FLAME Hearts Co., Ltd.**

Game development and CG content development



### **Aetas, Inc.**

Operation of a game information site, "4Gamer.net"



**Strengthen our governance structure and improve business execution capabilities by increasing the number of outside directors and executive officers from FY2022.**

## Management structure of main group companies

 **DIGITAL HEARTS HLDGS.**  
(Holding Company)

Representative Director, President and CEO  
**Yasumasa Ninomiya**

Director and Chairman  
**Eiichi Miyazawa**

Director, Executive Vice president and CFO  
**Toshiya Tsukushi**

Outside Director **Takashi Yanagiya**

Outside Director **Emiko Murei**

Outside Director **Ryo Chikasawa**

Standing Audit & Supervisory Board Member  
**Masahide Date**

Audit & Supervisory Board Member  
**Keiya Kazama**

Outside Audit & Supervisory Board Member  
**Toshifumi Nikawa**

Outside Audit & Supervisory Board Member  
**Yoko Okano**

Executive Officer and CSO  
**Tadahiro Ando**

Executive Officer and CTO  
**Kazutaka Jokura**

Executive Officer and CIO  
**Mamoru Seki**

Executive Officer **Toshiyuki Takahashi**

Executive Officer **Hideto Itami**



(Core Enterprise Business Company)

Representative Director and President  
**Yasumasa Ninomiya**

Director and Executive Vice President  
**Ken Hasegawa**

Director, Executive Vice President and CTO  
**Kazutaka Jokura**

Director **Toshiya Tsukushi**

Director **Tadahiro Ando**

Director and CPO  
**Mamoru Seki**

Director **Kenzo Miyajima**

Director and CTSO  
**Juichi Takahashi**

Executive Officer  
**Yohei Takagi**

Executive Officer  
**Taku Ueda**

 **DIGITAL HEARTS**  
(Core Entertainment Business Company)

Representative Director and President  
**Toshiya Tsukushi**

Director and Executive Vice President  
**Ryogo Hagiwara**

Director **Yasumasa Ninomiya**

Director **Tadahiro Ando**

Director **Shinichiro Kasama**

Director **Takuya Tanaka**

Executive Officer  
**Koichi Nakashima**

Executive Officer  
**Tetsuya Hiyoshi**

| Terms                  | Definition                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enterprise Business    | Our service-based business segment for non-gaming enterprise software, which provides software testing and cyber security. It is the main driver of growth in our corporate group due to the massive digital transformation currently sweeping through society.                                                                                                       |
| Entertainment Business | Our service-based business segment for the game and entertainment industries, which provides debugging and localization. It is our “cash cow”, primary stream of revenue in Japan and continues to see extensive growth in the global market.                                                                                                                         |
| System Testing         | This is a term used in our Enterprise Business and the same meaning of software testing. System testing comprises detection of system bugs for enterprise resource planning (ERP) software, websites, business apps, etc.                                                                                                                                             |
| Debugging              | This is a term used in our Entertainment Business. We run tests and find software bugs from the perspective of the user. Debugging generally refers to the identification and correction of errors, but we specialize in identifying and reporting them.<br>Mobile games comprise two-thirds of our debugging requests, with console games making up the other third. |
| QA                     | An abbreviation for Quality Assurance. It includes both of software testing and game debugging.                                                                                                                                                                                                                                                                       |
| LQA                    | An abbreviation for Linguistic Quality Assurance. LQA focuses on finding and fixing in-game linguistic errors that occur when translating from a foreign language.                                                                                                                                                                                                    |
| Test Engineer          | Engineers who conduct software testing. It has not been popular yet in Japan as a job career and Japan currently has a shortage of test engineers, we often recruit IT engineers and provide them the necessary training.                                                                                                                                             |
| Tester                 | Staff members who carry out debugging. Most of our testers are registered part-time workers. Some are trained to work as test engineers or cybersecurity specialists.                                                                                                                                                                                                 |
| Console Games          | A game played using dedicated hardware such as the Nintendo Switch or PlayStation.                                                                                                                                                                                                                                                                                    |
| Qualitist              | Our uniquely coined term for specialists who contribute to the quality of software. It refers to all IT specialists such as test engineers and cybersecurity specialists in our Enterprise Business, as well as testers, translators, 2D/3D graphic designers, etc. that work in our Entertainment Business.                                                          |



DIGITAL HEARTS HLDGS.

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**Email : [ir\\_info@digitalhearts.com](mailto:ir_info@digitalhearts.com)**

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